to route m incoming signals, m≤N, and for enabling the service of any connection request in a nonblocking way on the condition that the connection request is compliant to certain constraints, the method for each of the compressors includes: (a) configuring a switch defined by a set of connection states and having an array of N input ports with N distinct input addresses and an array of N output ports with N distinct output addresses wherein the m incoming signals arrive at m distinct input ports determining m active input addresses and are destined for corresponding m distinct output ports determining m active output addresses, and wherein said constraints on the connection request are that: (1) the m active output addresses are consecutive upon a rotation of the ordering of the N output addresses, and (2) the correspondence between the m active input addresses and the m active output addresses is order preserving after the rotation; and (b) routing the incoming signals from the m distinct input ports to the corresponding m distinct output ports by activating one of the connection states such that the activated one of the connection states accommodates the connection request subject to said constraints on the connection request, said class excluding (i) those having a switch constructed from the reverse banyan network of switching cells appended with the inverse shuffle exchange and (ii) those having a switch constructed from the reverse shuffle-exchange network of switching cells appended with the inverse shuffle exchange.

In accordance with a broad system aspect of the present invention, a class of N×N compressors each serving a connection request to route m incoming signals, m≤N, and for enabling the service of any connection request in a nonblocking way on the condition that the connection request is compliant to certain constraints, each of the

compressors includes: (a) a switch defined by a set of connection states and having an array of N input ports with N distinct input addresses and an array of N output ports with N distinct output addresses wherein the m incoming signals arrive at m distinct input ports determining m active input addresses and are destined for corresponding m distinct output ports determining m active output addresses, and wherein said constraints on the connection request are that: (1) the m active output addresses are consecutive upon a rotation of the ordering of the N output addresses, and (2) the correspondence between the m active input addresses and the m active output addresses is order preserving after the rotation; and (b) control circuitry, coupled to the switch, for routing the incoming signals from the m distinct input ports to the corresponding m distinct output ports by activating one of the connection states such that the activated one of the connection states accommodates the connection request subject to said constraints on the connection request, said class excluding (i) those having a switch constructed from the reverse banyan network of switching cells appended with the inverse shuffle exchange and (ii) those having a switch constructed from the reverse shuffle-exchange network of switching cells appended with the inverse shuffle exchange.

Please replace lines 1-3 on page 13 as follows: --

FIG. 21B depicts a (1 2 3) permutation on an 8×8 exchange;

FIG. 21C depicts a (3 1) permutation on an 8×8 exchange;

FIG. 21D depicts a combined (1 4)(2 3) permutation on an 8×8 exchange;--.